

**SYSTEM AND METHOD FOR PRODUCING AN INTEGRATED  
CIRCUIT LAYOUT REPRESENTATION**

**ABSTRACT OF THE DISCLOSURE**

5           A method of producing a layout representation corresponding to an  
integrated circuit (IC) device design can include generating an initial layout  
representation in accordance with a predetermined set of design rules and  
simulating how structures within the initial layout representation will pattern on a  
wafer. Based on the simulation, portions of the layout representation, which  
10 include structures demonstrating poor manufacturability and/or portions of the  
layout representation in which extra manufacturability margin is present, can be  
identified. Portions of the layout representation including structures  
demonstrating poor manufacturability and/or in which extra manufacturability  
margin is present can be modified to optimize the layout representation.

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